



U.S. Department
of Transportation
**Pipeline and
Hazardous Materials
Safety Administration**

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0735/S-96, REVISION 2**

400 Seventh Street, S.W.
Washington, D.C. 20590

This certifies that the sources described have been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency¹ and the United States of America² for the transport of radioactive material.

1. Source Identification - International Isotopes Inc. (INIS) Models INIS-SF-CS-1J and INIS-SF-CS-2J.
2. Source Description - Cylindrical single over-encapsulations made of either Type 304, Type 304L, Type 316, or Type 316L stainless steel and tungsten inert gas seal welded. Approximate exterior dimensions of the Models INIS-SF-CS-1J and INIS-SF-CS-2J range from 7.47 mm (0.294 in.) to 11.18 mm (0.440 in.) in diameter and 11.38 mm (0.448 in.) to 17.15 mm (0.675 in.) in length. Construction shall be in accordance with attached International Isotopes Inc. Drawing No. INIS-DWG-0014, Rev. 1.
3. Radioactive Contents - No more than 555.0 GBq (15.0 Ci) of Cesium-137. The Cs-137 is in the form of a solid cesium chloride, cesium sulfate or cesium nitrate.
4. Special Conditions -
 - a. Sources to be over-encapsulated shall be double encapsulations.
 - b. Sources to be over-encapsulated shall be constructed from a series 300 stainless steel to ensure material compatibility with the INIS Types 304, 304L, 316, or 316L stainless steel outer capsule.
 - c. Sources to be over-encapsulated shall have outside dimensions that are compatible with the range specified for the Model INIS-SF-CS-1J and INIS-SF-CS-2J source capsule design.

¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency(IAEA), Vienna, Austria.

² Title 49, Code of Federal Regulations, Parts 100-199, United States of America.

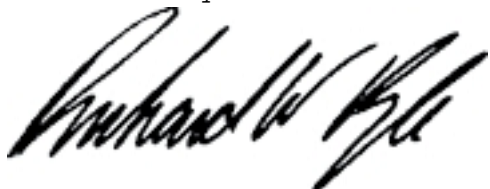
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- d. Sources to be over-encapsulated shall be marked with a Model and/or Serial number and shall be linked to a specific Registry of Radioactive Sealed Sources and Devices Safety Evaluation of a Device, or Special Form Certificate of Competent Authority.
 - e. Sources to be over-encapsulated shall successfully pass either a vacuum bubble test, hot liquid bubble test, or a helium pressurization bubble test in accordance with ANSI/HPS N43.6-1997 Annex A Paragraph A.2.2.1, A.2.2.2, or A.2.2.3, respectively. This test shall be performed within 6 months prior to over-encapsulation.
 - f. Sources to be over-encapsulated shall successfully pass either the wipe (smear) test or dry wipe test in accordance with ANSI/HPS N43.6-1997 Annex A Paragraphs A.2.1.1 or A.2.1.2, respectively. This test shall be performed within 6 months prior to over-encapsulation.
 - g. Sources to be over-encapsulated shall pass a visual inspection indicating they are free of defects at the time of over-encapsulation.
5. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations¹ shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors in the United States exporting shipments under this certificate shall satisfy the applicable requirements of Subpart H of 10 CFR 71.
6. Expiration Date - This certificate expires on July 31, 2011. On February 28, 2007, this certificate supersedes all previous revisions of USA/0735/S-96.


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This certificate is issued in accordance with paragraph 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the November 22, 2006 petition by International Isotopes Inc., Idaho Falls, ID, and in consideration of other information on file in this Office.

Certified By:



Dec 29 2006

 Robert A. McGuire
Associate Administrator for Hazardous Materials Safety

(DATE)

Revision 2 - Issued to add a range of sizes for source capsule design.

All dimensions in inches

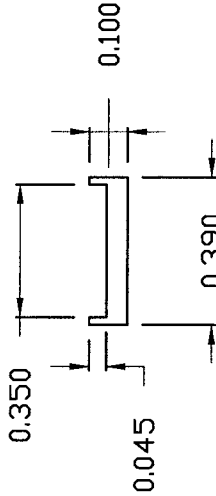
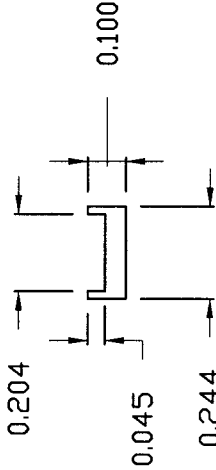
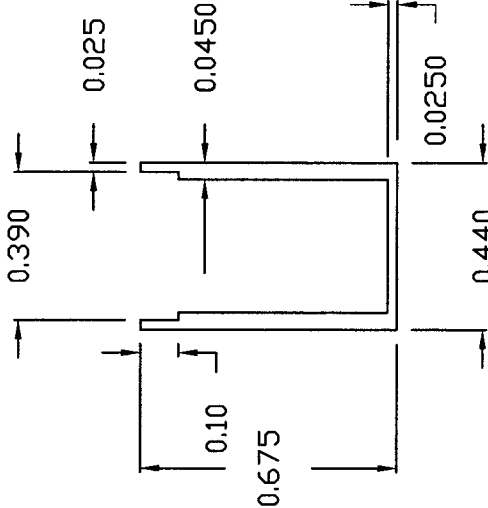
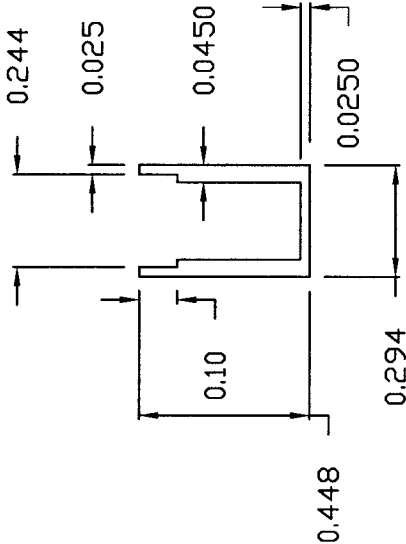
All components fabricated from 304, 304L, 316 or 316L SST.

Caps and capsule bodies shall be fabricated from the same alloy

Fusion seal weld on the full circumference of all end caps

MINIMUM
CAPSULE DIMENSIONS

MAXIMUM
CAPSULE DIMENSIONS



REVISIONS			
DATE	DESCRIPTION	BY	DATE
	FIRST ISSUE		

THIS DRAWING	PART OR IDENTIFYING NO.	DESCRIPTION	QTY
I³MM International Isotopes Inc. (Including International Isotopes Idaho Inc. subsidiary)			
TOLERANCE	DATE	CS-137 SOURCE CAPSULES	
.XX ±.00	11/22/06		
XXX ±.00	11/22/06		
FINISH: ±1/64	11/22/06		
ANGLES: 30°	N/A		
SHEET: None		Sheet 1 of 1	
		DWG. NO.	REV.
		INIS-DWG-0014	1



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ORIGINAL REGISTRANT(S):

Mr. John Miller
Radiation Safety Officer
International Isotopes Inc.
4137 Commerce Circle
Idaho Falls, 83401
USA